W11-12X2500
3 ROLLER BENDING MACHINE
OPERATION MANUAL
MANUFACTURE DATE SERIAL №

#### 3 Roller Bending Machine

#### Total P8 №P1

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#### 1. Machine Construction and Use.

The machine is designed to roll flat plate into round or canister shape which in turn is used for the manufacture of ventilation or sewage pipes also chimneys for the exhausting of air. This type of pipe is especially suited for buildings that have environmental regulations.

The working area required for the bending machine is not large, while its operation is simple. Adjustment for different diameter materials is an easy task to platform in which is housed the drive system for the rollers.

Designed to function by a systematical 3-roller unit, which is driven by two motors. The rolling speed is appropriate to the diameter of the plate to be rolled. Transformation of the flat plate into the round is performed without the surface or the tensile quality being affected. The operation and adjustment of the machine is very easy.

Pressure plate material must be in the middle of the plate, each must first rise in the press. Minimum diameter plate for 600/500mm. (W11-12X3100/W11-10X2500)

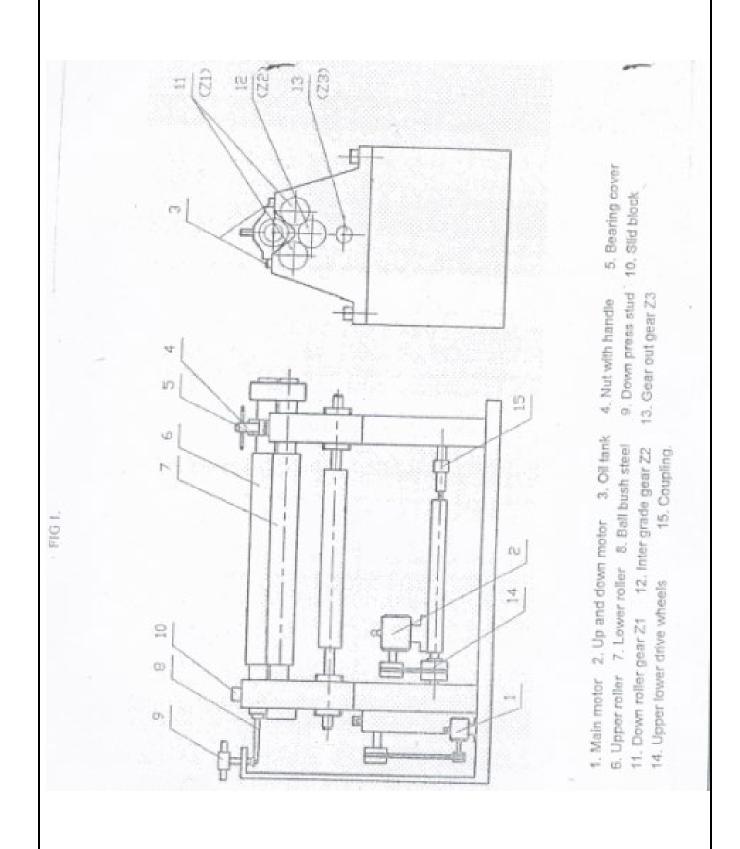
#### 2. Technical Specifications.

Model Model	Max Bending Thickness	Max Bending Width	Main Motor	Feeding Model	Gear Model	Break Model
MPR-6×3100	6mm	3100	220v/380v/5.5kw	220v/380v/2.2kw	WPA120(50:1)	
MPR-8×3100	8mm	3100	220v/380v/5.5kw	220v/380v/2.2kw	WPA120(50:1)	
W11-10×2500	10mm	2500	220v/380v/5.5kw	220v/380v/2.2kw	WPA120(50:1)	
MPR-6X2500	6mm	2500	220v/380v/5.5kw	220v/380v/2.2kw	WPA120(50:1)	
W11-12X2500	12mm	2500	220v/380v/7.5kw	220v/380v/4kw	WPA120(50:1)	
W11-4×1300	4mm	1300	380v/415v/3kw	308v/415v/2.2kw	WPA120(50:1)	
W11-4×1600	4mm	1600	380v/415v/3kw	308v/415v/2.2kw	WPA120(50:1)	
W11-3×3100	3mm	3100	380v/415v/4kw	380v/415v/3kw	WPA120(50:1)	

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#### 3. Driving System. See Fig 2

The machine has three round rollers with the downward two rollers being two rollers being the main rollers. The lower roller is chain driven. The transportation of flat steel plate through the rolling system will produce a cylindrical shape.

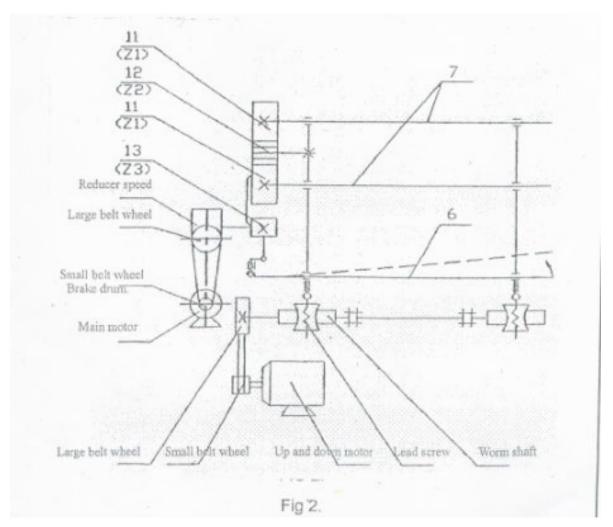
Lower Roller Drive System.

N=Main Drive—V—Belt—Gearbox—Z1/Gear Z2

Upper Roller 6 sees Fig 1. Has pressure bending ability, while the feed motor worm gear unit allows a reduction in speed.

Upper Roller. Up and down train drive system.

V=Main Motor—Belt driven wheel.---Worm/Cam—Nut/Stud.



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#### 4. Operations and Adjustment.

Operation of the machine.

Place flat steel plate between the upper and lower rollers. Then start the up and down motor 2, the upper roller presses down onto the work piece. Start the main motor 1. The lower roller will start to rotate driving the upper roller.

In steps increase the pressure of the upper roller. The right roller rotates, while the opposite roller turns to give a cylindrical work piece or can shape.

The work piece is on the upper roller 6 Fig 1.To unload the work piece loosens the securing wheel 4 Fig 1. Open the upper cover 5 Fig 1 loosens the stud 9 Fig 1 then presses the ball bush of the upper roller. Start the up and down motor 2 Fig 1 the upper roller will rise. You can now remove the work piece.

When you find the upper and lower rollers are not parallel you need to adjust the rollers. First loosen the left connecting rod four screws 15 Fig 1. Then rotate wheel 14 Fig 1 by hand in order to adjust the upper roller right end by 0.1mm with every rotation of the drive belt wheel.

#### 5. Electrical System.

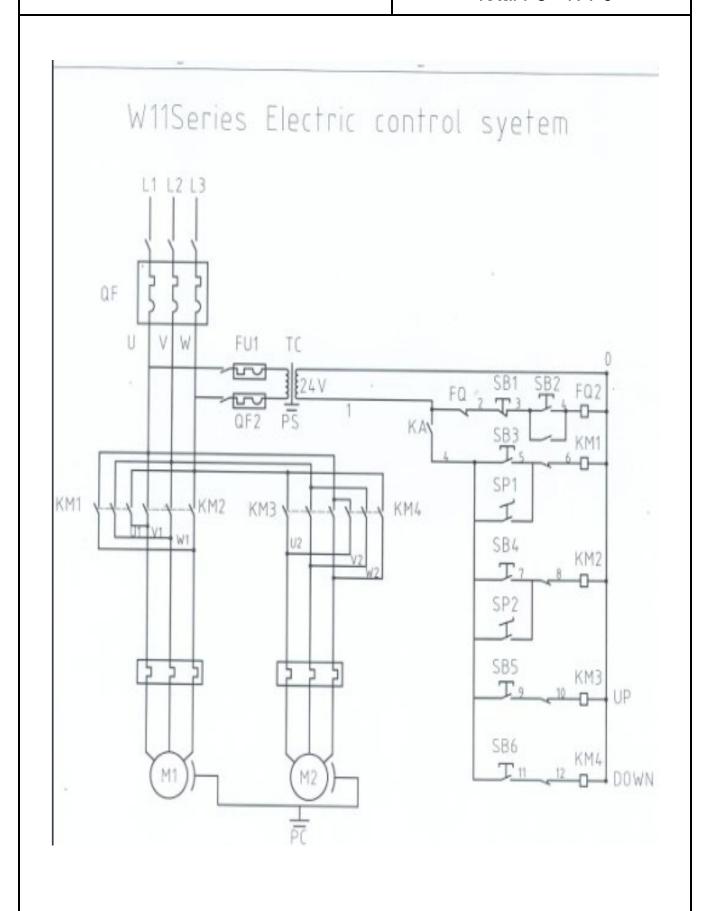
The machine uses a three-phase AC motor, which is able, to be rotated and inched by the inching button. The required power supply being 380V/50HZ.

#### Operating Instructions.

- 1. Switch on the mains power supply. Power indicator lights on.
- 2. Push down 1AN. The down roller motor rotates a forward direction.
- 3. Push down 2AN. The down roller motor rotates backward.
- 4. Push down 3AN. The upper roller motor rotates forward and the top roller rises.
- 5. Push down 4AN. The upper roller motor rotates backwards and the top roller moves downwards.

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#### 6. Lubrication.

- 1) Before adjusting the upper rollers up, you should loosen stud 9 see Fig 1, then start the motor. When operating the machine, you should open the gearbox oil hole to add lubricating oil up to the full line, you should lubricate the driving gear surface and grease, add oil every month as required.
  - 2) Add lubricating oil to the two-sided oil tanks (3) daily or as required.
  - 3) Add lubricating oil to the upper roller bearing glass (11) daily.
  - 4) Open the upper roller bearing cover (5), add lubricating oil daily.

#### 7. Maintenance and Safety

#### Maintenance

- 1) Check all bearing surface for overheating reduce the machines speed, grease and lubricate as required.
- 2) Check the V-belts for being loose, adjust if worn or loose.
- 3) Keep all working surfaces clean and free of waste materials.
- 4) Check all electrical connections, the two motors and switches ensuring that the earth connections are good.

#### Safety

- 1) Ensure all covers are closed before operating the machine.
- When the machine is not in use it should be isolated from the electrical soppy.
- 3) Before adjusting the upper roller up. Loosen stud 9 see Fig 1 then sat art the motor.

#### 8. Unpacking and Inspection.

#### Unpacking.

- a. When unpacking the machine from a shipping container ensure that all lifting is by the use of certified lifting strops.
- b. Ensure that the machine does not tip over on lifting .

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c. Unpacking from a transportation crate, follow the instruction from the packing note. Using the opening points as indicated on the packing crate.

## FAILURE TO FOLLOW THEAE INSTRUCTIONS COULD LEAD TO DAMAGE OF THE MACHINE.

Inspection.

- a. Inspect all parts before use for damage. Inform its agent in the event of any inoperative parts or damage to the machine.
- b. Check all oil reservoirs are full of oil, refilling as requires.
- c. Inspect all moving parts for grease or oil, greasing or oiling as needed.

# 3 ROLLER BENDING MACHINE W11-12X2500

### **Quality Certification**

Model	
SERIAL №	-
MANUFACTURED Date	

THIS MACHINE HAS PASSED ITS FINAL QUALITY AUDIT

Inspector:	
Date:	